

## PROJECT-1

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### Description:

For a chat server broadcast application, I used threads. Clients are trying to connect to the server. Using socket programming I established a connection between server and multiple clients.

### #libraries needed

```
import sys
```

```
import socket
```

```
import select
```

```
import threading
```

### #requirements

```
python 2.7
```

### # running server program

```
python.server.py
```

### #running client program

pass the serverip and port from the server program to client program while running

```
python client.py [serverip] [port]
```

### case 1: chat between/among clients

```
message received from Client : ('128.186.120.189', 50140):iam fine
```

### case 2: terminating client

```
message received from Client : ('128.186.120.189', 50140):iam fine
message received from Client : server is closing the connection
cheeti@linprog5.cs.fsu.edu:~/project1>
```

### case 3: terminating server

```
message received from Client : server wants to close the connection
cheeti@linprog3.cs.fsu.edu:~/project1>
message received from Client : server is closing the connection
cheeti@linprog5.cs.fsu.edu:~/project1>
```

### Case 4: when client is trying to establish a connection which is not active

jupyter\_mac.command — ssh cheeti@linprog.cs.fsu.edu — zsh — 164x25

```
enter ctrl+c to terminate
('128.186.120.158', 49969)
connection established from ('128.186.120.186', 51644)
the number active connections1
connection established from ('128.186.120.189', 59842)
the number active connections2
^Ctotal number of active clients1
total number of active clients0
terminated
cheeti@linprog2.cs.fsu.edu:~/project1>python chatserver.py
enter ctrl+c to terminate
('128.186.120.158', 34820)
connection established from ('128.186.120.186', 52298)
the number active connections1
connection established from ('128.186.120.189', 50140)
the number active connections2
('128.186.120.186', 52298)hi
('128.186.120.186', 52298)how are you
('128.186.120.189', 50140)hey 52298
('128.186.120.189', 50140)iam fine
client('128.186.120.189', 50140) wants to close the connection
total number of active clients are 1
^Ctotal number of active clients0
terminated
cheeti@linprog2.cs.fsu.edu:~/project1>
```

jupyter\_mac.command — ssh cheeti@linprog.cs.fsu.edu — zsh — 80x24

```
cheeti@linprog3.cs.fsu.edu:~>cd project1
cheeti@linprog3.cs.fsu.edu:~/project1>python chatclient.py 128.186.120.158 49969
('128.186.120.158', 49969)
Message received from the server: welcome to the server
type'close' to exit
message received from Client : server wants to close the connection
cheeti@linprog3.cs.fsu.edu:~/project1>python chatclient.py 128.186.120.158 34820
('128.186.120.158', 34820)
Message received from the server: welcome to the server
type'close' to exit
hi
how are you
message received from Client : ('128.186.120.189', 50140):hey 52298
message received from Client : ('128.186.120.189', 50140):iam fine
message received from Client : server wants to close the connection
cheeti@linprog3.cs.fsu.edu:~/project1>
```

jupyter\_mac.command — ssh cheeti@linprog.cs.fsu.edu — zsh — 80x24

```
type'close' to exit
message received from Client : server wants to close the connection
cheeti@linprog5.cs.fsu.edu:~/project1>python chatclient.py 128.186.120.158 34820
('128.186.120.158', 34820)
Message received from the server: welcome to the server
type'close' to exit
message received from Client : ('128.186.120.186', 52298):hi
message received from Client : ('128.186.120.186', 52298):how are you
hey 52298
iam fine
close
message received from Client : server is closing the connection
cheeti@linprog5.cs.fsu.edu:~/project1>python chatclient.py 128.186.120.158 34820
('128.186.120.158', 34820)
connection failed
cheeti@linprog5.cs.fsu.edu:~/project1>
```